

[PHASE LOCK LOOP CIRCUIT AND OPERATION METHOD THEREOF]

Abstract

A counter is employed to compare two values and then output a difference value between the two values: one value is produced by the counter during a cycle of input frequency and another is produced by the counter during a cycle of output frequency. The VCO (voltage control oscillation) controls the tuning speed of output frequency depending on the difference value, and so the tuning speed is higher when the difference value is bigger; and the tuning speed is lower when the difference value is smaller. Hence, the output frequency is highly tuned to the needed output frequency and avoids convergence failure.